

ALG.2 PART 3

(31)

$$y = -5x + 9$$

$$x = 0 \quad y_{\text{int.}} = 9$$

$$y = 0 \quad -5x + 9 = 0$$

$$-5x = -9$$

$$x = \frac{9}{5} \quad x\text{-int.}$$

$$\left(\frac{9}{5}, 9\right)$$

(32)

$$y = \frac{3}{4}x - 1\frac{1}{5}$$

$$m = \frac{3}{4}$$

$$m_{\perp} = -\frac{4}{3}$$

(33)

$$-8x - 6y = -8$$

$$-4x - 3y = -4$$

$$y = mx + b$$

$$+4x$$

$$+4x$$

$$-3y = 4x - 4$$

$$\div -3$$

$$\div -3$$

$$\div -3$$

$$y = -\frac{4}{3}x + \frac{4}{3}$$

$$m_1 = \frac{3}{4}$$

$$y - y_1 = m(x - x_1)$$

$$y - -1 = \frac{3}{4}(x - 8)$$

$$y + 1 = \frac{3}{4}x - 6$$

$$y = \frac{3}{4}x - 7$$

$$-\frac{3}{4}x - \frac{3}{4}x$$

$$-\frac{3}{4}x + y = -7$$

$$(-4) - \frac{3}{4}x + y = -7^{(-4)}$$

$$3x - 4y = 28$$

(34)

$$5x + 1 \geq 3(x + 2)$$

$$\begin{array}{r} 5x + 1 \geq 3x + 6 \\ -3x \quad -3x \end{array}$$

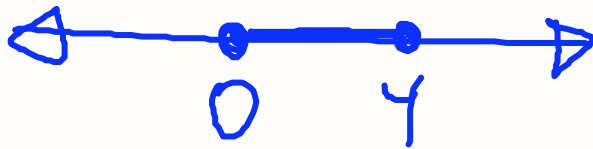
$$\begin{array}{r} 2x + 1 \geq 6 \\ -1 \quad -1 \end{array}$$

$$\begin{array}{r} 2x \geq 5 \\ \hline 2 \quad 2 \end{array}$$

$$x \geq 2.5$$

(35)

$$0 \leq x \leq 4$$



(36)

$$\begin{array}{ccccccc} -3 & \leq & -3x + 9 & \leq & 6 \\ -9 & & -9 & & -9 \end{array}$$

$$\begin{array}{ccccccc} -12 & \leq & -3x & \leq & -3 \\ -3 & & -3 & & -3 \end{array}$$

$$4 \geq x \geq 1$$

$$1 \leq x \leq 4$$

(37)

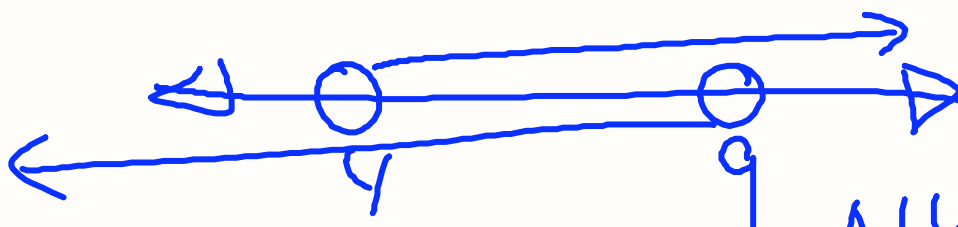
$$2x - 2 > 6 \quad \text{OR} \quad 3x + 2 < 29$$
$$\quad +2 \quad +2 \quad \quad \quad -2 \quad -2$$

$$\frac{2x}{2} > \frac{8}{2}$$

$$x > 4$$

$$\frac{3x}{3} < \frac{27}{3}$$

$$x < 9$$



ALL REAL
NUMBERS

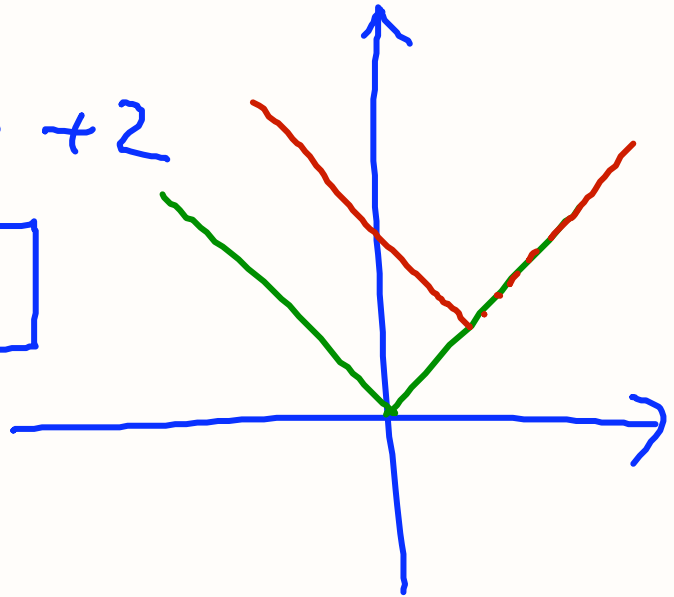
(38) $y = \underline{|x|}$ $y = \underline{|x-2|+2}$

$$y_1 = \text{abs}(x)$$

$$y_2 = \text{abs}(x-2) + 2$$

MATH

NUM



$$(39) \quad |x-4|=5$$

$$\begin{array}{r} x-4=5 \\ +4 \quad +4 \end{array}$$

$$x_2 = 9$$

$$\begin{array}{r} x-4=-5 \\ +4 \quad +4 \end{array}$$

$$x_1 = -1$$

$$(40)$$

$$|x-2| \leq 1$$

$$\begin{array}{r} -1 \leq x-2 \leq 1 \\ +2 \quad +2 \quad +2 \end{array} ; \quad 1 \leq x \leq 3$$

41

dim 2×3

$$\begin{cases} 7x + 2y = 37 \\ 5x + 6y = -1 \end{cases}$$

$$\begin{array}{ccc} 7 & 2 & 37 \\ 5 & 6 & -1 \end{array}$$

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$$\begin{cases} 7x + 2y = 37 \\ 5x + 6y = -1 \end{cases}$$

$$\begin{array}{r} -21x - 6y = -111 \\ 5x + 6y = -1 \end{array}$$

$$\begin{array}{r} -16x = -112 \\ \hline -16 \quad \quad -16 \end{array}$$

$$x = 7$$

$$\begin{array}{l} 5 \cdot 7 + 6y = -1 \\ 6y = -36 \\ y = -6 \end{array}$$